

CLAIMS

I CLAIM:

Sub B1
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1. A circuit comprising:
a first circuit having a first input and a first output, said first output being a function of said first input plus a noise component;
a second circuit, identical to and located proximate to said first circuit, and having a second input and a second output;
said second input set to cause said second output to equal said noise component of said first output; and
a subtractor circuit connected to said first circuit and to said second circuit to subtract said second output from said first output.

2. A circuit according to claim 1 further comprising a digital circuit located proximate to said first circuit and to said second circuit.

3. A circuit according to claim 1 wherein said subtractor circuit further comprises a halving circuit.

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4. A circuit comprising:
a first circuit having a first input and a first output, said first output being a function of said first input plus noise;
a second circuit, identical to said first circuit, and having a second input and a second output;
said second input ^{set} designed to cause said second circuit to produce, as said second output, said noise only; and

a third circuit having a third input connected to said first output, a fourth input connected to said second output to subtract said second output from said first output.

5. A circuit according to claim 4, further comprising a digital circuit proximal to said first circuit and to said second circuit.

6. A circuit according to claim 5, wherein said first circuit, said second circuit, said third circuit, and said digital circuit are on a single integrated circuit chip.

7. A circuit comprising:

a first circuit having a first input and a first output, said first output being a function of said first input plus noise;

a second circuit, identical to said first circuit, and having a second input and a second output;

said second input, being an inverse of said first input, ^{cause} causing said second circuit to produce, as said second output, an inverse function of said first circuit plus noise; and

a third circuit having a third input connected to said first output and a fourth input connected to said second output, and combining said second output from said first output.

8. A circuit according to claim 7 wherein said third circuit further comprises a halving circuit.

9. A circuit according to claim 7, further comprising a digital circuit proximal to said first circuit and to said second circuit.

Sub B4
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10. A circuit according to claim 9, wherein said first circuit, said second circuit, said operator circuit, and said digital circuit are on a single integrated circuit chip.

11. An integrated circuit chip (IC) circuit comprising:
a digital circuit;
a plurality of analog circuits, each proximal to said digital circuit and to each other, and each of said plurality of analog circuits producing an output signal;
a noise detector circuit, proximal to said plurality of analog circuits, and producing a noise signal;
a noise canceling circuit, processing said outputs from said plurality of analog circuits with said noise signal.

Sub B4
Sub B6
12. An IC according to claim 11 wherein said noise canceling circuit comprises a subtractor circuit.

13. An IC according to claim 11 wherein said noise canceling circuit further comprises a halving circuit.

14. A noise cancellation method comprising the steps:
supplying a first signal to a first circuit;
reading a first output from said first circuit;
supplying a null signal to a second circuit located proximal to said first circuit;
reading a second output from said second circuit;
combining said first output with said second output to produce a combinational output.

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~~15. A method according to claim ²¹14 wherein said second circuit is identical to said first circuit.~~

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~~16. A method according to claim ²¹14 wherein said step of combination comprises the step of subtracting said second output from said first output.~~

sub B7
~~17. A method according to claim 14 wherein said step of combination comprises the step of adding said second output to said first output.~~

~~18. A method according to claim 17 wherein said step of combination further comprises the step of halving said added output.~~

~~19. A method to minimize effects of digital circuit noise on analog circuits, said method comprising the steps:~~

~~supplying a first signal to a first analog circuit;
reading a first output from said first analog circuit;
supplying a second signal to a second analog circuit;
reading a second output from said second analog circuit;
supplying a null signal to a third analog circuit located proximal to said first analog circuit and to said second analog circuit;
reading a third output from said third analog circuit;
combining said first output with said third output to produce a first combinational output; and combining said second output with said third output to produce a second combinational output.~~